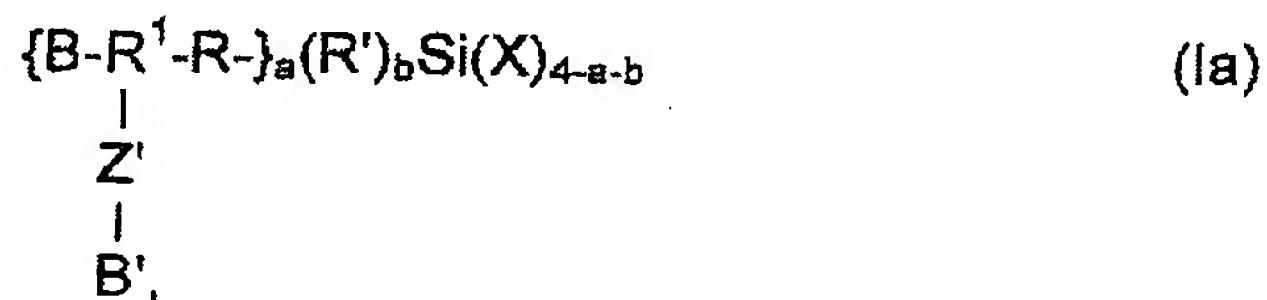


## AMENDMENTS TO THE CLAIMS

This listing replaces all prior versions and listings of claims in the application.

### Listing of Claims

1. (Currently Amended) Silane of the structure (Ia) below



where the radicals and indices have the following meanings:

R is an open-chain and/or cyclic alkylene, arylene, or alkylene-arylene group, with 1 to 10 carbon atoms in each case, which can be interrupted by one or more oxygen or sulfur atoms or carboxyl or amino groups or can carry such atoms/groups at their end opposite the silicon atom,

R<sup>1</sup> is a Z'-substituted, open-chain and/or cyclic alkylene, arylene, or alkylene-arylene group, with 1 to 10 carbon atoms in each case, which can be interrupted by one or more oxygen or sulfur atoms or carboxyl or amino groups or can carry such atoms/groups at their end opposite the silicon atom,

R' is an open-chain and/or cyclic alkyl, alkenyl, aryl, or alkylaryl, or arylalkyl group, with preferably 1 to 20 carbon atoms,

B and B' can be the same or different, both radicals can be a straight-chain or branched organically polymerizable group with at least one C=C double bond and at least 2 carbon atoms, instead of this B' can also be -R<sup>2</sup><sub>a</sub>SiX<sub>4-a</sub> or -R<sup>2</sup><sub>a</sub>R<sup>1</sup><sub>b</sub>SiX<sub>4-a-b</sub>, where R<sup>2</sup> is an alkylene group with 1 to 10 carbon atoms and R' is defined as above,

X is a group which can enter into a hydrolytic condensation reaction with the formation of Si-O-Si bridges,

Z' is selected from -NH-C(O)O-, -NH-C(O)-, or -CO(O)-, where the two radicals named first are bonded via the NH group to the group B' while the carboxylate group can point in both directions, where,

when Z' is a -CO(O)- group, the carbon atom of which is bonded to the radical B', and B' is a straight chained or branched organically polymerizable group having at least one C=C double bond and at least 2 carbon atoms, this C=C double bond must be part of a (meth)-acrylate residue as component of B', and

the grouping B'-Z'- is not an acrylate group if B comprises an acrylate group,  
and the grouping B'-Z'- is not a methacrylate group if B comprises a  
methacrylate group,

a is 1 or 2, and

b is 0 or 1.

2. (Previously presented) Silane according to claim 1, in which

R<sup>1</sup> is a group with 1 to 10 carbon atoms and/or

B and optionally also B' carries at least one Michael system, and/or

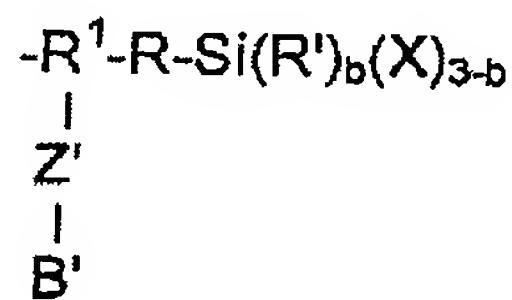
X is a C<sub>1</sub>-C<sub>10</sub> alkoxy group.

3. (Previously presented) Silane according to claim 1, in which

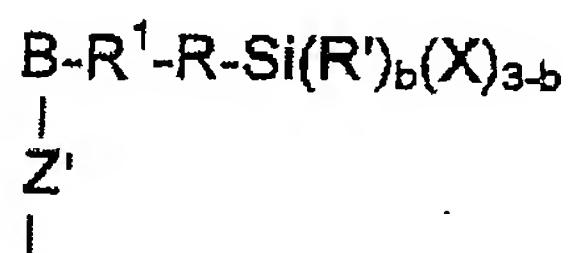
the radicals B and optionally also B' are acrylic acid ester groups and/or methacrylic acid ester groups of trimethylolpropane, of glycerin, of pentaerythritol, of C<sub>2</sub>-C<sub>4</sub>-alkane diols, of polyethylene glycols, of polypropylene glycols, or in given cases substituted and/or alkoxylated, bisphenol A or comprise these esters.

4. (Previously presented) Silane according to claim 1, in which the radicals B and optionally also B' comprise an end-to-end carbon skeleton or this skeleton is interrupted by heteroatoms or groups chosen from among O, S, SO, NH, NHCO, PR, POR, CONHCO, COO, NHCOO.
5. (Previously presented) Silane according to claim 1, in which a is equal to 1 and b is equal to 0.
6. (Previously presented) Silane according to claim 1, in which a is equal to 1 and b is equal to 1.
7. (Previously presented) Silane according to claim 1, in which B is a (meth)acrylate group or comprises a radical which is bonded via a (meth)acrylate group to R<sup>1</sup> and comprises no additional or one, two, or three (meth)acrylate groups.
8. (Previously presented) Silane according to claim 1, in which B is bonded via a group Z to R<sup>1</sup>, where Z is an -O-C(O)-, -S-C(O), or -NH-C(O)- group if Z' is -NH-CO- and Z is -O-R<sup>4</sup>, -S-R<sup>4</sup>, -NH-R<sup>4</sup>, -C(O)O-R<sup>4</sup>, -O-, -S-, -NH-, or -C(O)O- if Z' is -NH-C(O)O-, where R<sup>4</sup> is selected from alkylene, arylene, or alkylarylene with 1 to 10 (for ringless groups) or 6 to 14 (for ring-containing groups) carbon atoms.
9. (Previously presented) Silane according to claim 7, in which Z' is -NH-C(O)O- or -NH-C(O).
10. (Previously presented) Silane according to claim 7, in which b is zero.
11. (Previously presented) Silane according to claim 7, in which b is 1 and R' is a C<sub>1</sub>-C<sub>4</sub> alkyl group.

12. (Previously presented) Silane according to claim 1, in which B' is a (meth)acrylate group or comprises a radical which is bonded via a (meth)acrylate group to R<sup>1</sup> and comprises no additional or one, two, or three (meth)acrylate groups.
13. (Previously presented) Silane according to claim 1, in which B' is a dialkoxyalkylsilylalkylene group with 1 to 4 carbon atoms in the alkyl and alkoxy groups and 1 to 8 carbon atoms in the alkylene group.
14. (Previously presented) Silane according to claim 1, in which B comprises at least one additional group



or B' comprises at least one additional group

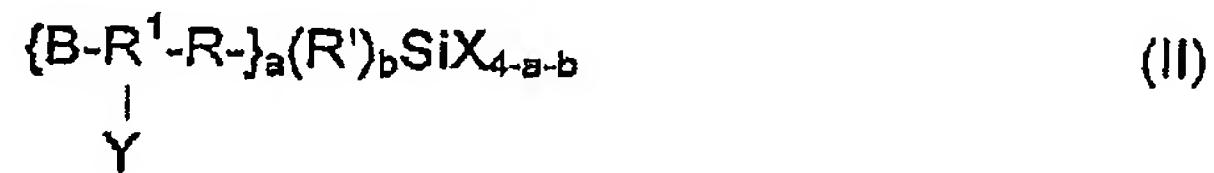


where the radicals and indices have the meanings specified in claim 1 for the structure (1a).

15. – 36. (Cancelled)

37. (Withdrawn) Process for the production of a silane with the structure (Ia) as defined in claim 1, comprising the following steps
- (a) preparation of a compound with the structure (II) or an isomer

a re-esterification product, or one of this compound's condensation products arising by loss of an alcohol molecule



in which B, R<sup>1</sup>, R, R', X, a, and b have the meanings specified in claim 1 for the structure (Ia) and Y is OH or COOH,

and Y means COOH,

- (b) reaction of this compound or of the isomer, re-esterification product, or condensation product with a compound

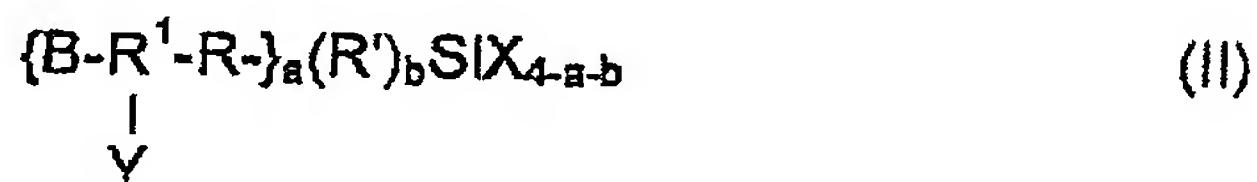


in which B' has the meaning specified in claim 1 for structure (Ia), and

- (c) in given cases, workup of the product.

38. (Withdrawn) Process for the production of a silane with the formula (Ia) as defined in claim 1, including the following steps:

- (a) preparation of a compound with the structure (II) or an isomer a re-esterification product, or one of this compound's condensation products arising by loss of an alcohol molecule

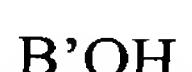


in which B, R<sup>1</sup>, R, R', X, a, and b have the meanings specified in claim 1 for the structure (Ia),

and Y means COOH.

(b) reaction of this compound or of the isomer, re-esterification product,

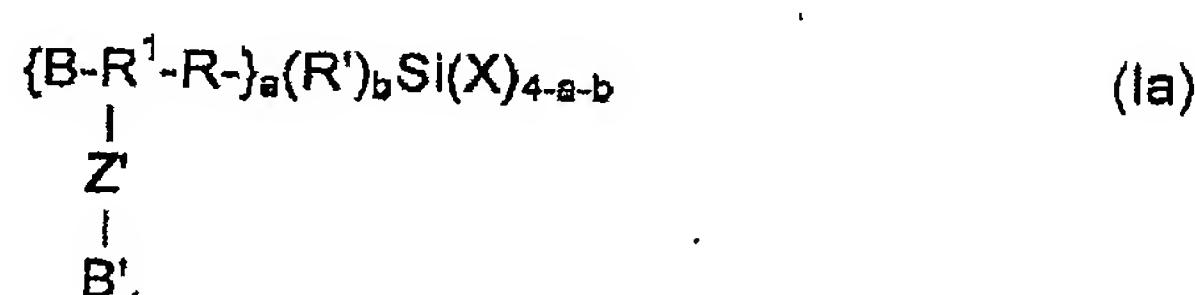
or condensation product with a compound



in which  $B'$  has the meaning specified in claim 1 for structure (Ia),  
and

(c) in given cases, workup of the product.

39. (Withdrawn) Process for the production of a silane with the formula (Ia)



where the radicals and indices have the following meanings:

$R$  is an open-chain and/or cyclic alkylene, arylene, or alkylene-arylene group, with 1 to 10 carbon atoms in each case, which can be interrupted by one or more oxygen or sulfur atoms or carboxyl or amino groups or can carry such atoms/groups at their end opposite the silicon atom,

$R^1$  is a  $Z'$ -substituted, open-chain and/or cyclic alkylene, arylene, or alkylene-arylene group, with 1 to 10 carbon atoms in each case, which can be interrupted by one or more oxygen or sulfur atoms or carboxyl or amino groups or can carry such atoms/groups at their end opposite the silicon atom,

$R'$  is an open-chain and/or cyclic alkyl, alkenyl, aryl, or alkylaryl, or arylalkyl group, with preferably 1 to 20 carbon atoms,

$B$  and  $B'$  can be the same or different, both radicals can be a straight-chain or branched organically polymerizable group with at least one  $C=C$  double bond and at

least 2 carbon atoms, instead of this B' can also mean  $-R^2_aSiX_{4-a}$  or  $-R^2_aR^1_bSiX_{4-a-b}$ ,

where is an alkylene group with 1 to 10 carbon atoms and R' is defined as above.

X is a group which can enter into a hydrolytic condensation reaction with the formation of Si-O-Si bridges.

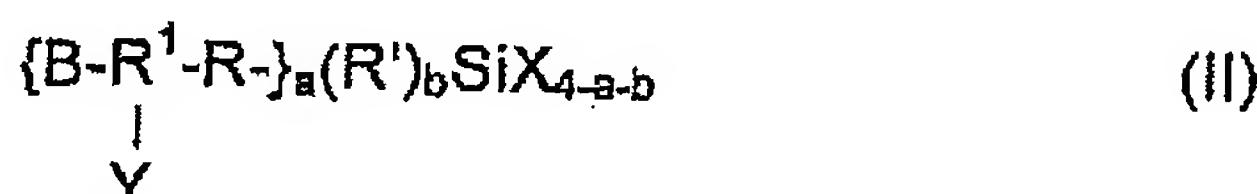
Z' is  $-CO(O)-$ , where the carbon atom is bound to the residue B',

a is 1 or 2,

and b is 0 or 1

comprising the following steps:

- (a) preparation of a compound with the structure (II) or an isomer  
a re-esterification product, or one of this compound's condensation products arising by loss of an alcohol molecule



in which B, R<sup>1</sup>, R, R', X, a, and b have the meanings specified in claim 1 for the structure (Ia) and Y is OH,

- (b) reaction of this compound or of the isomer, re-esterification product,  
or condensation product with a compound



in which B' has the meaning specified in claim 1 for structure (Ia)  
and C(O)X' is a carboxylic acid group or an activated carbonyl  
compound, in particular an acid chloride or an acid anhydride,  
and

- (c) in given cases, workup of the product.

40. (Previously presented) Silane according to claim 1, in which Z' is -NH-C(O)O- or -NH-C(O).
41. (Previously presented) Silane according to claim 9, in which b is zero.
42. (Previously presented) Silane according to claim 9, in which b is 1 and R' is a C<sub>1</sub>-C<sub>4</sub> alkyl group.
43. (Previously presented) Silane according to claim 40, in which b is 1 and R' is a C<sub>1</sub>-C<sub>4</sub> alkyl group.
44. (Previously presented) Silane according to claim 2, in which R<sup>1</sup> is a group with 1 to 4 carbon atoms.